What is claimed is:

1. An optical fiber array comprising a plurality of optical-fiber bare fibers which are disposed in alignment between two opposing plate members and are optically connected to connection elements in an end-to-end facing arrangement with each other, wherein;

the optical-fiber bare fibers are disposed in contact with a flat surface of one plate member A, an adjustment layer formed of an adhesive is interposed between another plate member B and the plate member A, where a flat surface of the plate member B on its side opposite to the adjustment layer serves as a disposition standard surface when the array is set in; and

the adjustment layer, which fulfills conditions of $(dmax + r) < H$ where the desired preset distance from i) a central line of the optical-fiber bare fibers which is formed by connecting central points of end cross sections in the optical-fiber bare fibers disposed in alignment to ii) the disposition standard surface is represented by H, the maximum value of the thickness dimension in the plate member B by dmax, and the radius of the end cross sections of the respective optical-fiber bare fibers by r, compensates a deviation from the preset distance H that is caused by a non-uniformity in thickness dimension in

the plate member B, whereby the distance from the central points of the respective optical-fiber bare fibers to the disposition standard surface is set identical or substantially identical to the preset distance H.

2. The optical fiber array according to claim 1, wherein said adjustment layer comprises a mixture of a resin and an inorganic filler.

3. The optical fiber array according to claim 2, wherein said resin is a cured product of a light-curable resin.

4. The optical fiber array according to any one of claims 1 to 3, wherein the distance from the central points of the respective optical-fiber bare fibers to the disposition standard surface has an accuracy of ±5 μm or less in respect to the desired preset distance H.

5. The optical fiber array according to any one of claims 1 to 3, wherein the horizontal distance W between one lateral surface of at least one of the plate member-A and the plate member-B and the central point of an end cross section of an arbitrary optical-fiber bare fiber has an accuracy of ±5 μm or less in respect to the

desired preset value.

6. A method for manufacturing an optical fiber array comprising a plurality of optical-fiber bare fibers which are disposed in alignment between two opposing plate members and are optically connected to connection elements in an end-to-end facing arrangement with each other; the method comprising the steps of:

fixing respective optical-fiber bare fibers held in rows of V grooves of an optical-fiber bare fiber alignment guide, onto a flat surface of a plate member A to form a fixed member consisting of the plate member A and a plurality of optical-fiber bare fibers;

adjusting the posture of at least one of the fixed member and a predetermined standard plane while bringing the respective outer peripheral surfaces of the optical-fiber bare fibers fixed to the flat surface of the plate member A, into contact with the standard plane, to ensure the parallelism between i) a central line of the optical-fiber bare fibers which is formed by connecting central points of end cross sections of the optical-fiber bare fibers in the fixed member and ii) the standard plane, and to set to zero the vertical distance between i) the respective outer peripheral surfaces of the optical-fiber bare fibers kept in contact with the

standard plane and ii) the standard plane;

separating the fixed member and the standard plane by a stated distance while maintaining the parallelism between the central line of the optical-fiber bare fibers in the fixed member and the standard plane, and thereafter disposing another plate member B on the standard plane;

making the fixed member and the standard plane close by a stated distance while maintaining the parallelism between the central line of the optical-fiber bare fibers in the fixed member and the standard plane, and thereafter joining the plate member B disposed on the standard plane and the plate member A of the fixed member in the state an adhesive is interposed between them; and

curing the adhesive to form an adjustment layer to set the distance from the central points of the respective optical-fiber bare fibers to the disposition standard surface identical or substantially identical to the preset distance H; the adjustment layer fulfilling conditions of $(dmax + r) < H$ where the desired preset distance from the central line of the optical-fiber bare fibers to the standard plane is represented by H, the maximum value of the thickness dimension in the plate member B by dmax, and the radius of the end cross sections of the respective optical-fiber bare fibers by r.

7. The optical fiber array manufacturing method according to claim 6, wherein said optical-fiber bare fiber alignment guide is so disposed that the horizontal distance between a row of the V-grooves and one lateral surface of the plate member A comes to be a stated value, and the respective optical-fiber bare fibers held in the V grooves of this optical-fiber bare fiber alignment guide are fixed onto the flat surface of the plate member A to form the fixed member consisting of the plate member A and the optical-fiber bare fibers.

8. The optical fiber array manufacturing method according to claim 6 or 7, wherein the horizontal distance between one lateral surface of the plate member B disposed on the standard plane and one lateral surface of the plate member A in the fixed member is adjusted to come to be a stated value, then the plate member B and the plate member A of the fixed member are joined in the state the adhesive is interposed between them, and thereafter the adhesive is cured.